



Date: Tuesday, 29/05/2007 10:53:48 AM  
 User: Linda Lacelle

## Process Sheet

Split 2 of 0611

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 32710-1  
 Estimate Number : 10808  
 P.O. Number : N/A  
 This Issue : 29/05/2007 S.O. No. : N/A  
 Prsht Rev. : NC  
 First Issue : N/A Type : SMALL /MED FAB  
 Previous Run : 32328  
 Written By :   
 Checked & Approved By :   
 Comment : Est Rev:A 03.01.27 New issue KJ/RF

Drawing Name : STRUT ASSEMBLY

Part Number : D3180041  
 Drawing Number : D3180-PRELIMINARY  
 Project Number : N/A  
 Drawing Revision : A  
 Material : N/A  
 Due Date : 01/06/2007

Qty: 3 Um: Each

PTO

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M304TR0750W049 304 RD Tube .750 x .049W



Comment: Qty.: 3.7625 f(s)/Unit Total : 3.7625 f(s)  
 304/316 Seamless Tubing with 3/4" O.D. x 0.049" wall  
 (M304TR0.750W0.049)  
 Batch: M104565

45.100  
13.1

FF 07-05-29 3

2.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

1-Punch 304/316 Seamless Tubing with 3/4" O.D. x 0.049" wall to length as per Dwg D3180 using DT8313  
 Ensure rotate and punch one end only as per view B-B as per Dwg. D3180

FF 07-05-29 3

3.0 SMALL FAB 1 SMALL &amp; MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

1-Drill Ø0.203" as per Dwg D3180

FF 07-05-30 3

2-Bend one side only as per Dwg D3180 Identify as D3180-1

FF 07-05-31 3

3-Deburr edges

FF 07-05-30 3

4.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

ENGINEERING  
APPROVAL

107-05-30

POSITIVE  
RECALL

3

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
070611	16.0	Split w/o for A Qty 1 on - 2 split. 2 struts. to remain on this w/o.	J	0706-11	2	J 0706-11	J 0706-11

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: 12 Date: 07/06/09  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-05-31	3	0.20 HOLE IS POSITIONED AT 0.84 INSTEAD OF 0.75.	J 07-05-31 AS PER 07-04-2	DEVIATION IS ACCEPTABLE.	SB 07/05/31	J 0706-04	J 07-05-31 AS PER 07-04-2	J 07-05-31

NOTE: Date & initial all entries



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Part Number: D3180041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

POWDER COATING

POWDER COATING



P70  
3

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

BR

07-05-31

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



3X

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M-L

07/06/04

7.0

D2022101

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D2022-101 Spacer B30543

8.0

D26906

Lanyard



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2690-6 Lanyard B28519

31191

9.0

A1449

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3180-1(ref) Strut B32710

1 A1449 Grommet M1487

10.0

AN960JD10

Washer



Comment: Qty.: 3.0000 Each(s)/Unit Total: 3.0000 Each(s)

Pick:

Qty Part Number Description Batch

3 AN960JD10 Washer M104118

7/6/4 59

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/04/09  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
070604	5.0	2 struts have marker, marks on them, that came through the paint.	Q51042	grind to remove marker even, <del>clean</del> with sand strut with 320. Clean paint; repuncture coat per Q51005.	070604 BL	070604 BL	Q51042	070604

NOTE: Date & initial all entries

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Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

BLRS001

Pip Pin



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 BLRS-001

Pip Pin

M15608

12.0

MS21042L3

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 MS21042L3

Nut (or -3)

M103691

13.0

MS27039110

Screw



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 MS27039-1-10 Screw

18836

7/6/4 SQ

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Assemble as per Dwg D3180

FF 07-06-04

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

2070605 (3)



10-06-04 (2)

Note: 1 out of 3 was  
sent to TRX  
HELICOPTER FOR  
FIT & FUNCTION PER REQ



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Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

PACKAGING 1

PACKAGING RESOURCE #1



(P10)

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

~~FOR ENGINEERING USE ONLY~~

10/6/28 (2)

17.0

QC21

FINAL INSPECTION W/O RELEASE



(2)

Comment: FINAL INSPECTION W/O RELEASE

10/6/29

Job Completion



u 07-06-28

OK TO MANUFACTURE UP TO STEP 15.  
DO NOT PASS STEP 15.

POSITIVE RECALL

EFFECTIVE 070531

AUTH

4

RELEASED 070611

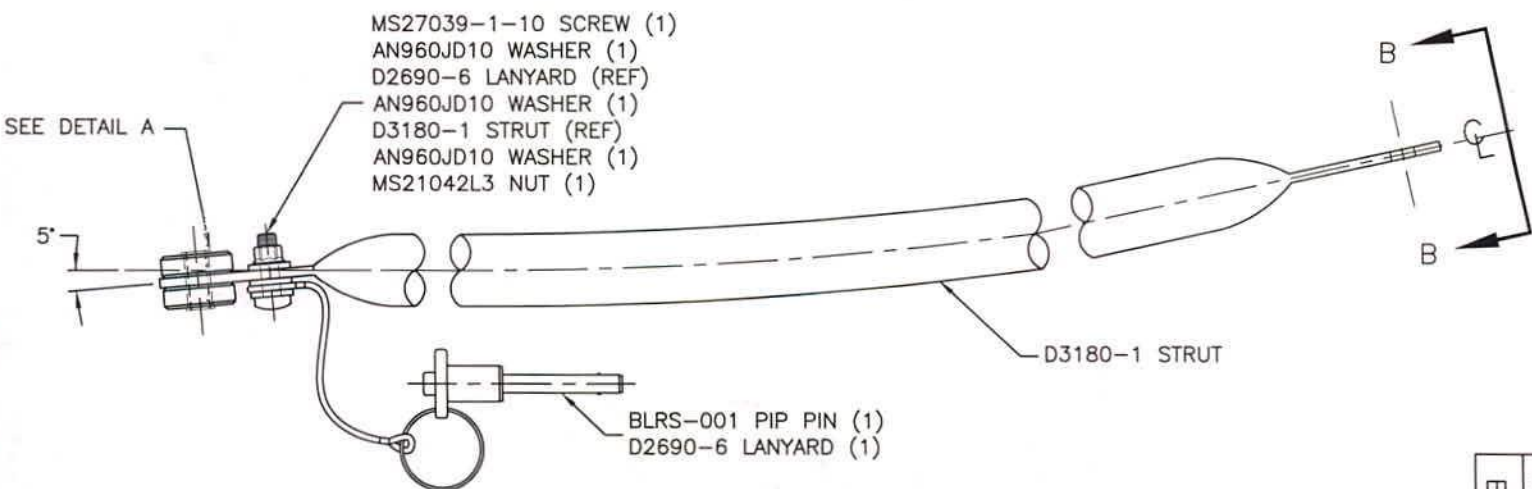
DATE

1

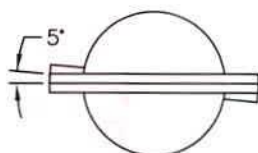
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**PRELIMINARY ISSUE**  
03.05.29

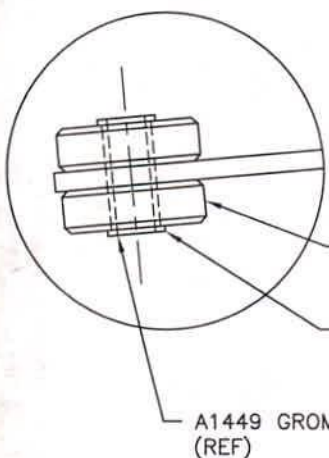
DESIGN	<i>HA</i>	DRAWN BY	<i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	<i>CE</i>	APPROVED		DRAWING NO. D3180	SHEET 1 OF 2
DATE	07.05.23	TITLE	STRUT ASSEMBLY	SCALE	1:2
A	03.01.06	NEW ISSUE			
B	07.05.23	CURVE ADDED			



### D3180-041 STRUT ASSEMBLY



**VIEW B-B**  
SCALE 1:1

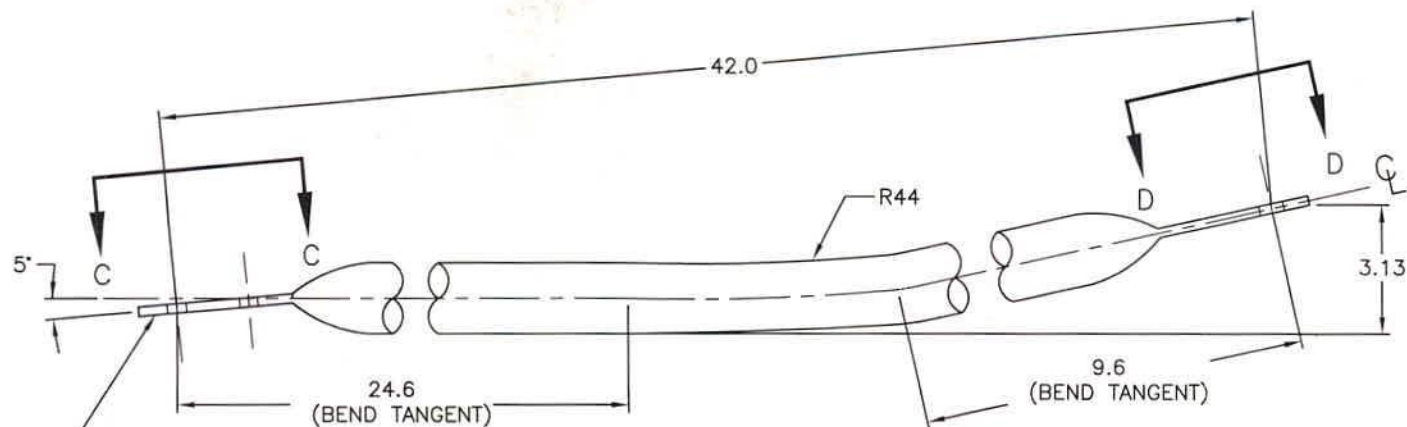


**DETAIL A**  
SCALE 1:1

QTY	PART NUMBER	DESCRIPTION
-041		
X	D3180-041	STRUT ASSEMBLY
1	D3180-1	STRUT
1	D2690-6	LANYARD
2	D2022-101	SPACERS
3	AN960JD10	WASHER
1	MS27039-1-10	SCREW
1	BLRS-001	PIP PIN
1	MS21042L3	NUT
1	A1449	GROMMET

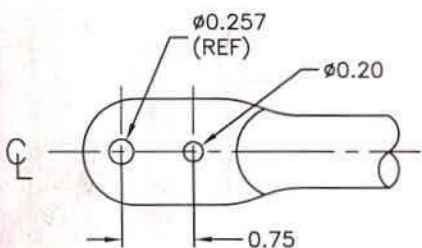
**PRELIMINARY ISSUE**

107.03.21

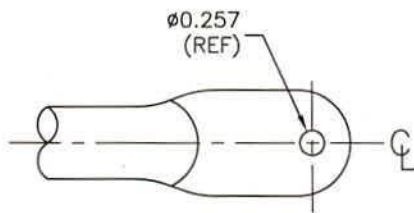


# **D3180-1 STRUT**

USE PUNCH DT8117  
BOTH ENDS  
(DIMS PER SPEC. CONTROL DWG D2638)



**VIEW C-C**



**VIEW D-D**

## **NOTES**

- 1) MATERIAL: AISI 304/316/318 SS TUBE,  
Ø0.75 X 0.065 WALL  
(REF. DART SPEC M304TRO.75OW.065)
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART  
QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS  
OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) IDENTIFY WITH PART P/N "D3180-041" USING  
FINE POINT PERMANENT INK MARKER

DESIGN	DRAWN BY	DRAWING NO.	REV. B
#	DL	D3180	2 OF 2
CHECKED	APPROVED	TITLE	SCALE
CE		STRUT ASSEMBLY	1:2
DATE			
07.05.23			

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA